Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended) A method of downsampling a two-dimensional block of discrete cosine transform (DCT) coefficients, comprising:

(a) providing a two-dimensional NxN block of DCT coefficients;

(b) applying a one-dimensional N/2xN de-interlacing inverse discrete cosine transform (IDCT) with respect to a first dimension of said block; and

(c) applying a one-dimensional de-interlacing inverse discrete cosine transform (IDCT) with respect to a second dimension of the results of step (b).

Claim 2 (currently amended) The method of claim 1, wherein:

(a) said ~~block is NxN; and~~

~~(b)~~ de-interlacing IDCT is $\mathbf{x}_e = \mathbf{T}^t(N/2)\ \mathbf{z}_p + \mathbf{QT}^t(N/2)\mathbf{K}^t\ \mathbf{z}_r$, where $\mathbf{x}_e$ is a vector of four downsample values, $\mathbf{z}_p$ is an N/2 component vector of the even-index components of a column of coefficients in said first dimension of said block, said even-index components in bit-reversed order, $\mathbf{z}_r$ is an N/2 component vector of the odd-index components of said column of coefficients in said first dimension of said block, said odd-index components in bit-reversed order, $\mathbf{T}^t(N/2)$ is the N/2-point IDCT, $\mathbf{K} = \mathbf{RLR}^t$, where $\mathbf{R}$ is a bit-reversal permutation matrix; and $\mathbf{L}$ is a N/2 x N/2 lower-triangular matrix, and $\mathbf{Q}$ is a N/2 x N/2 diagonal matrix: diag[cos((4m + 1)π/2N)] for m = 0, 1, …, N/2 –1.

Claim 3 (original) The method of claim 1, wherein:

(a) said block is 8x8.

Claim 4 (currently amended) A method of downsampling a two-dimensional block of discrete cosine transform (DCT) coefficients, comprising:

(a) providing a two-dimensional NxN block of DCT coefficients;

(b) applying a one-dimensional $N/2$xN de-interlacing inverse discrete cosine transform (IDCT) with respect to a first dimension of said block;

(c) applying a one-dimensional inverse discrete cosine transform (IDCT) with respect to a second dimension of the results of step (b); and

(d) downsample the results of step (c) with respect to said second dimension.

Claim 5 (currently amended) The method of claim 4, wherein:

(a) ~~said block is NxN; and~~

~~(b)~~ said de-interlacing IDCT is $\mathbf{x}_e = \mathbf{T}^t(4 \text{ } N/2)\ \mathbf{z}_p + \mathbf{QT}^t(4 \text{ } N/2)\mathbf{K}^t\ \mathbf{z}_r$, where $\mathbf{x}_e$ is a vector of four downsample values, $\mathbf{z}_p$ is an $N/2$ component vector of the even-index components of a column of coefficients in said first dimension of said block, said even-index components in bit-reversed order, $\mathbf{z}_r$ is an $N/2$ component vector of the odd-index components of said column of coefficients in said first dimension of said block, said odd-index components in bit-reversed order, $\mathbf{T}^t(4 \text{ } N/2)$ is the $4 \text{ } N/2$-point IDCT, $\mathbf{K} = \mathbf{RLR}^t$, where $\mathbf{R}$ is a bit-reversal permutation matrix; and $\mathbf{L}$ is a $N/2$ x $N/2$ lower-triangular matrix, and $\mathbf{Q}$ is a $N/2$ x $N/2$ diagonal matrix: diag[cos((4m + 1)π/2N)] for m = 0, 1, …, $N/2$ –1.

Claim 6 (original) The method of claim 4, wherein:

(a) said block is 8x8.